

Abstract

A proportional solenoid control valve comprises a flat square spring which is wide in maintaining width with respect to displacement of a spring having a greater spring constant, so that accurate control of fluid is realized. The flat square spring has four tubs and is supported with respect to a step face with outer peripheral section thereof. The valve further comprises a sealing mechanism loaded with rubber resilience compensates instability of armature construction and resilient sealing section. The spring constant of the flat square spring is improved by strengthening the magnetic force, thus hysteresis can be made to be smaller.